

## **ABSTRACT**

A reconfigurable optical add-drop multiplexer is disclosed that enables Optical Multiplex Section (OMS) shared protection rings. The ROADM comprises a first optical supervisory module, coupled to a first amplifier module, which in turn is coupled to a first broadcast and select module, where the first broadcast and select module is coupled to both a first multiplexer/demultiplexer module and the first optical supervisory module. Each optical supervisory module has an optical tap for tapping a fraction of an outgoing OMS signal that is fed back or looped back to a 2x1 optical switch in the optical supervisory module.